

ABSTRACT OF THE DISCLOSURE

Cementation in place of, or in conjunction with, artificial disc replacements (ADRs) to provide numerous advantages over existing techniques. Methods, instruments, and systems are disclosed. A preferred method of fixing an artificial disc replacement (ADR) to a vertebral endplate according to the invention includes locating a component
5 of the ADR in spaced-apart relation to the vertebral endplate and introducing cement between the component and the vertebral endplate. The "introduction" may be carried out through manual packing or forced injection using inventive instrumentation. The component of the ADR may be a rigid endplate, or it may be constructed of polyethylene or other suitable polymeric material. The component may further articulate with a second
10 component. A system according to the invention involving an artificial disc replacement (ADR) configured for placement between opposing vertebral endplates would comprise a component forming a cavity between the component and one of the vertebral endplates, and a path to fill the cavity with cement. Again, the path may be formed in the component with a channel or groove, with or without a peripheral rim, or the path may be
15 formed through a vertebral body. The system may further include various instruments, including an instrument for urging the component against the vertebral endplate until the cement cures, for injecting the cement prior to insertion of the component, for pressurizing the cement following introduction, or for removing excess, cured cement prior to placement of the ADR.